

Kansas City Streetcar



TEAM Annual Conference
March 14, 2013



The Kansas City Streetcar Experience

All Aboard...

Early 2011 Initiated Alternative Analysis

End 2011 Alternative Analysis complete

Early 2012 Advanced Conceptual Engineering

Mid 2012 Initiated Environmental Assessment



The Kansas City Streetcar Experience

Picked up Steam...

Mid 2012 Initiated Environmental Assessment

Oct. 2012 Finalized EA & received FONSI

Dec. 2012 Completed ACE

Dec. 2012 TDD vote passed for funding

Jan. 2013 Began final design work

The Kansas City Streetcar Experience

Full Speed Ahead...

July 2013 Begin Utility Relocation

January 2014 Begin Track Construction

Summer 2015 Open for Revenue Service



Streetcar IS...

Designed to serve as
urban circulator

Typical Urban Circulator

- shorter routes serving downtown & adjoining neighborhoods
- operates in mixed traffic
- more frequent service, smaller vehicles
- quick “on” and “off” the vehicle
- riders take shorter trips



Streetcar is **NOT**...

NOT Commuter rail or light rail or a metro-rail system

NOT Designed to serve longer trips from suburban area to downtown

Typical Commuter Rail/Light Rail

- Dedicated, exclusive right-of-way
- Longer distances between station stops
- Higher speeds
- Several rail cars in a “train”
- Longer distances served



Urban Circulators

Modern Streetcar



- Generally electrically powered
- Fixed guideway (rail); shares traffic lane with autos
- From 110 to 150 passengers

Operating in Mixed Traffic.....



Traveling Safely and Efficiently.....



With Minimal Impact on Parking.....



“Walk Extender” or “Pedestrian Accelerator”



...urban circulator supporting urban livability

Not just a transportation tool...

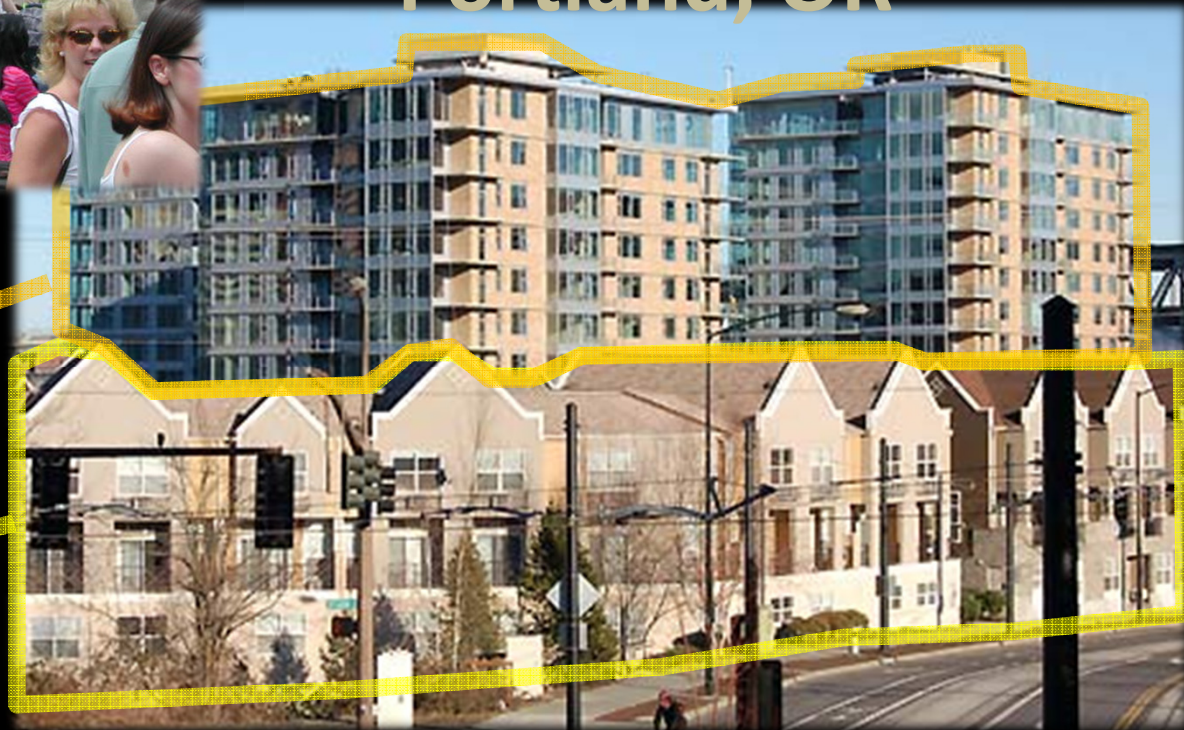
...an urban
economic strategy

Portland, OR

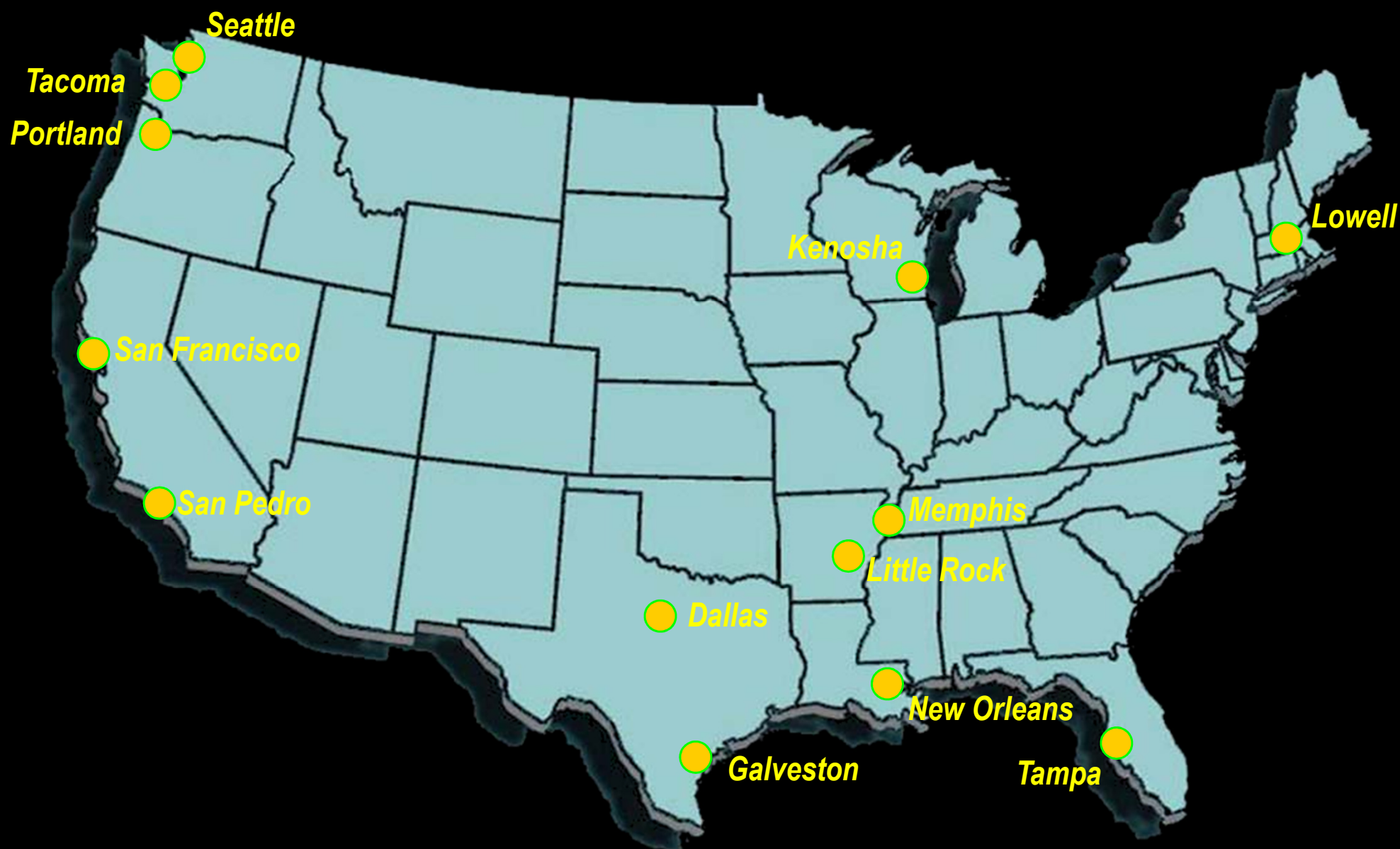


After streetcar

Before streetcar



U.S. Streetcar Systems in Operation (Modern and Vintage)



U.S. Communities Planning Streetcar Systems



Vehicles



Kansas City Vehicle Options



Kansas City's Streetcar will likely be at the shorter end of the range (67-80 feet long).

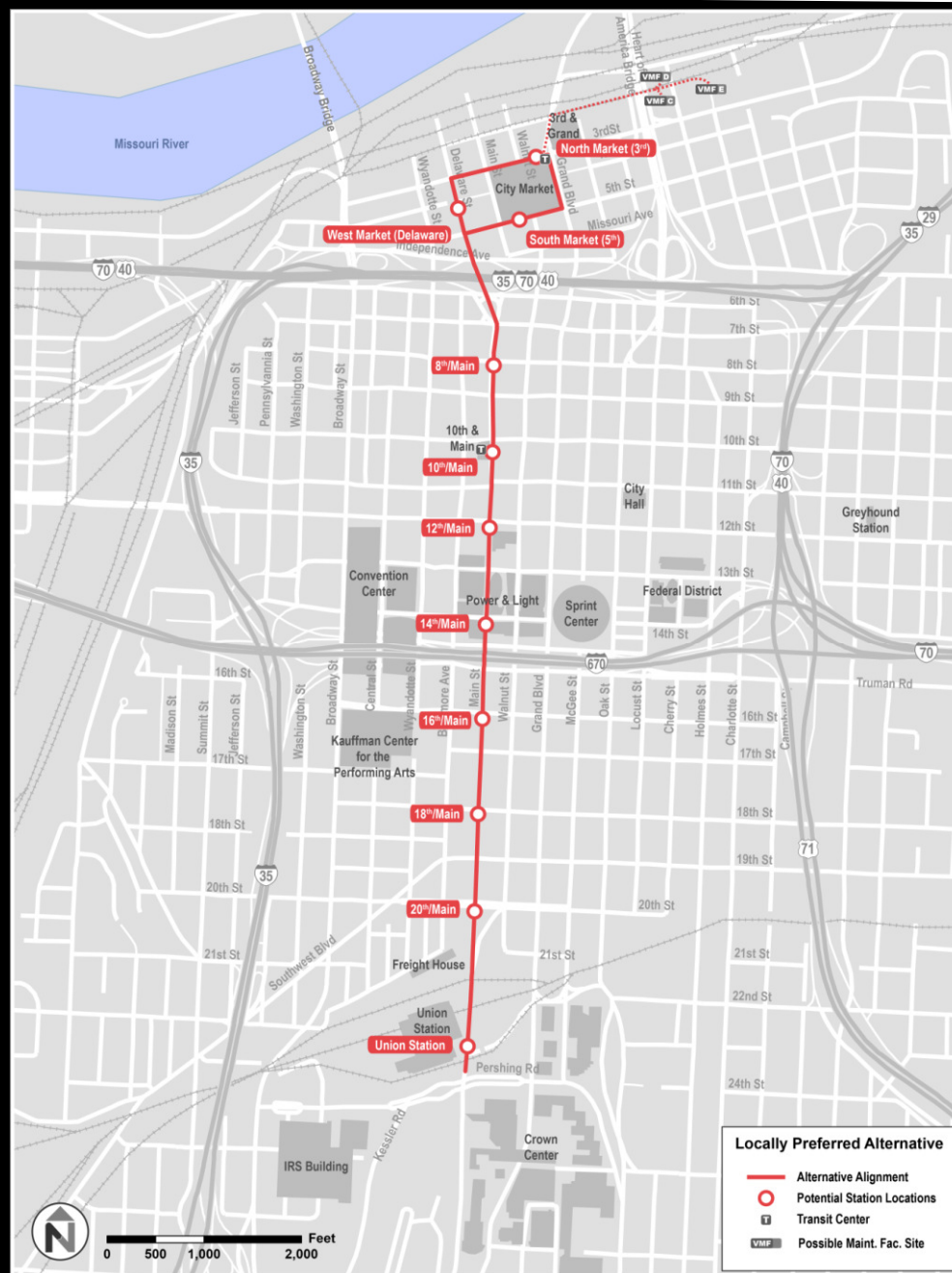
Interior will have a lot of standing room and will be customized to fit our citizen's needs.



Can operate in all weather conditions



Alignment



Streetcar Facts

2 mile corridor

3.9 miles of track

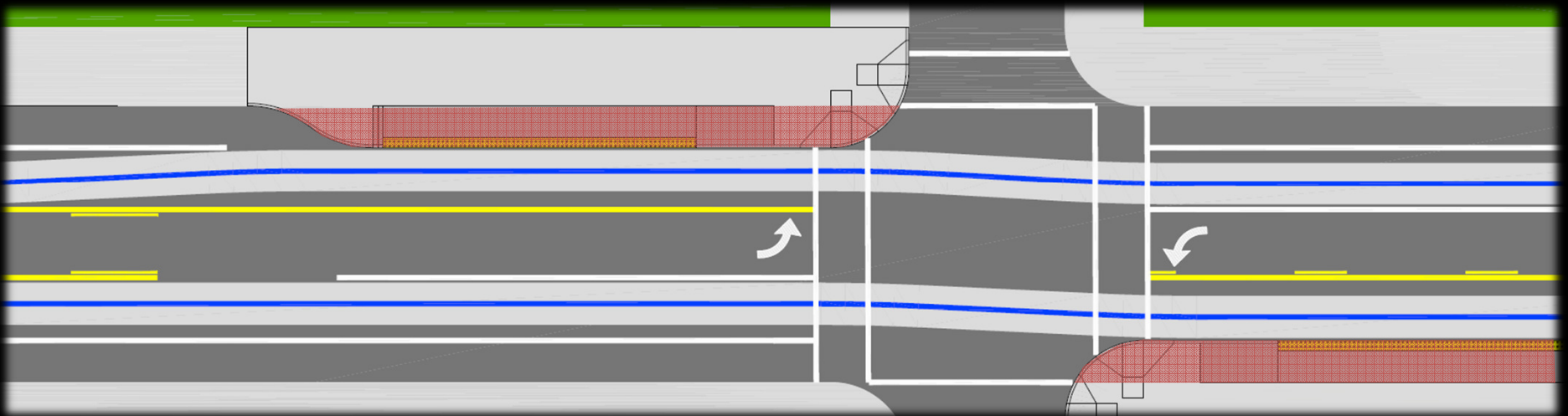
18 Stations

10 minute headways

7-days a week operations

4 Modern Streetcars

Stops



Stops & Stations

Station Design Goals

Safety

Comfort

Distinct Look

Seamless Integration

Durable

Sustainable



Typical Station Amenities

Variable message sign

Ticket machine

Shelter with map, display surface and
wind screen

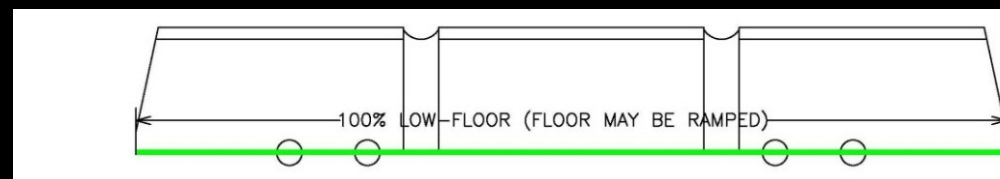
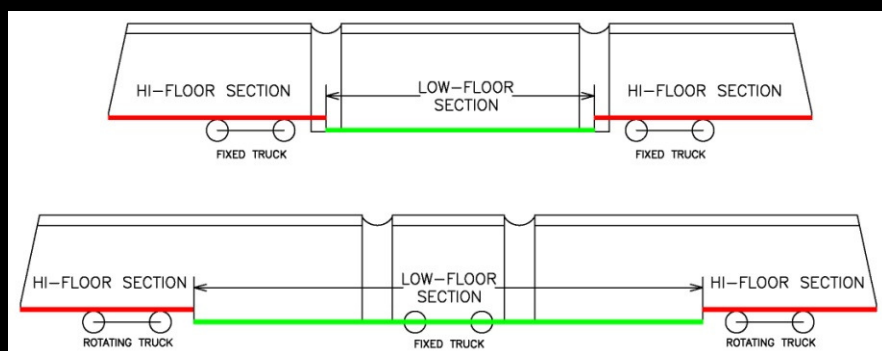
Bike racks & guardrail

Platform lighting

Stop Examples



Stops have level boarding

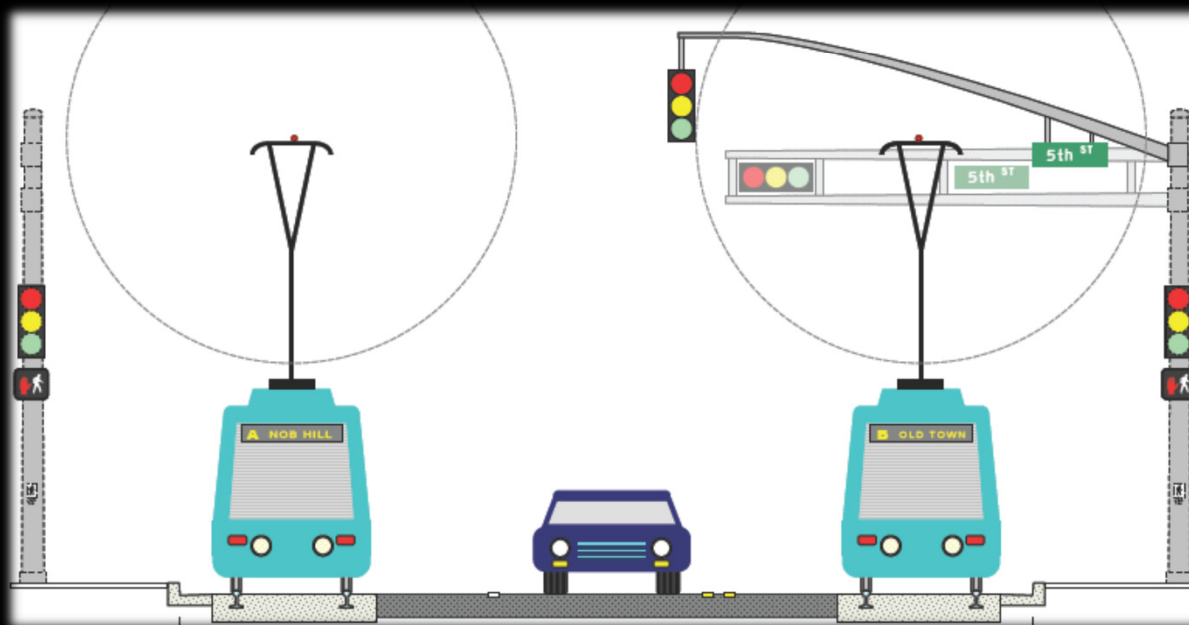


Parking



Photo: San Francisco Examiner

Existing Traffic Signals



Substations



Utilities

Construction / Utility Relocation

First Underground Utilities Have to Be Moved

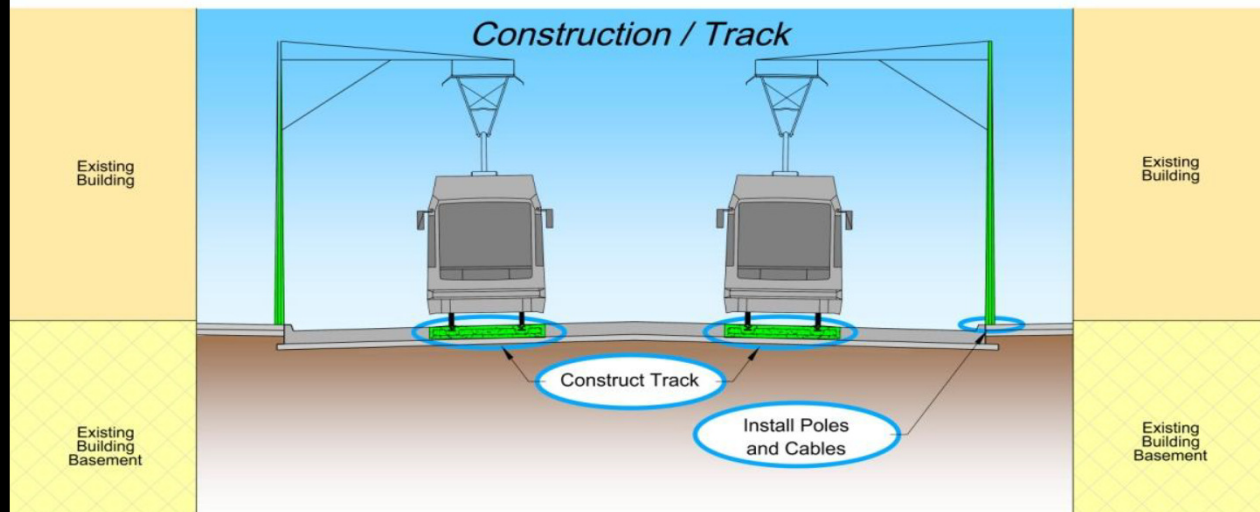
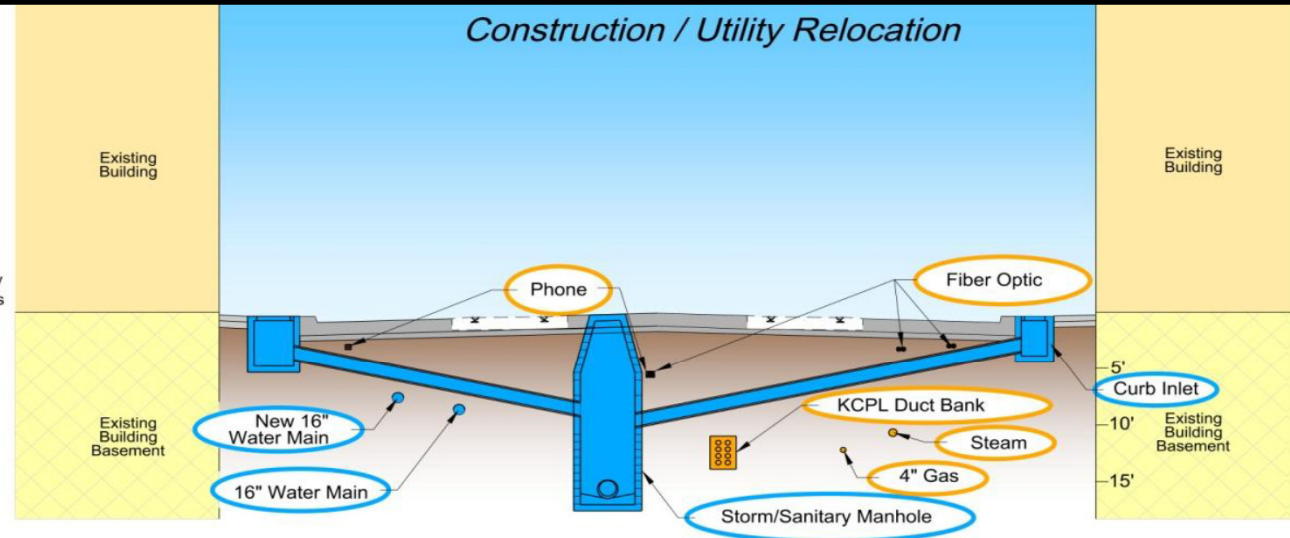
1. **City utilities (water lines)** have to be moved from where future track will be located.

- **Sanitary sewer** manholes will be reconstructed and sewer lines will be lined.
- **Storm sewer** inlets will be relocated at station stops.

2. **Private Utilities (power, fiber, gas, steam, and phone)** in conflict will be moved away from where the future track will be located. The City highly encourages the private utilities to move their lines when street segments are closed for city utility relocations. However, the City cannot dictate when private utilities are moved.

3. Street pavement will be repaired after utilities are moved and other improvements made.

Approximate Construction Time: 2 to 8 weeks per 3 block section.



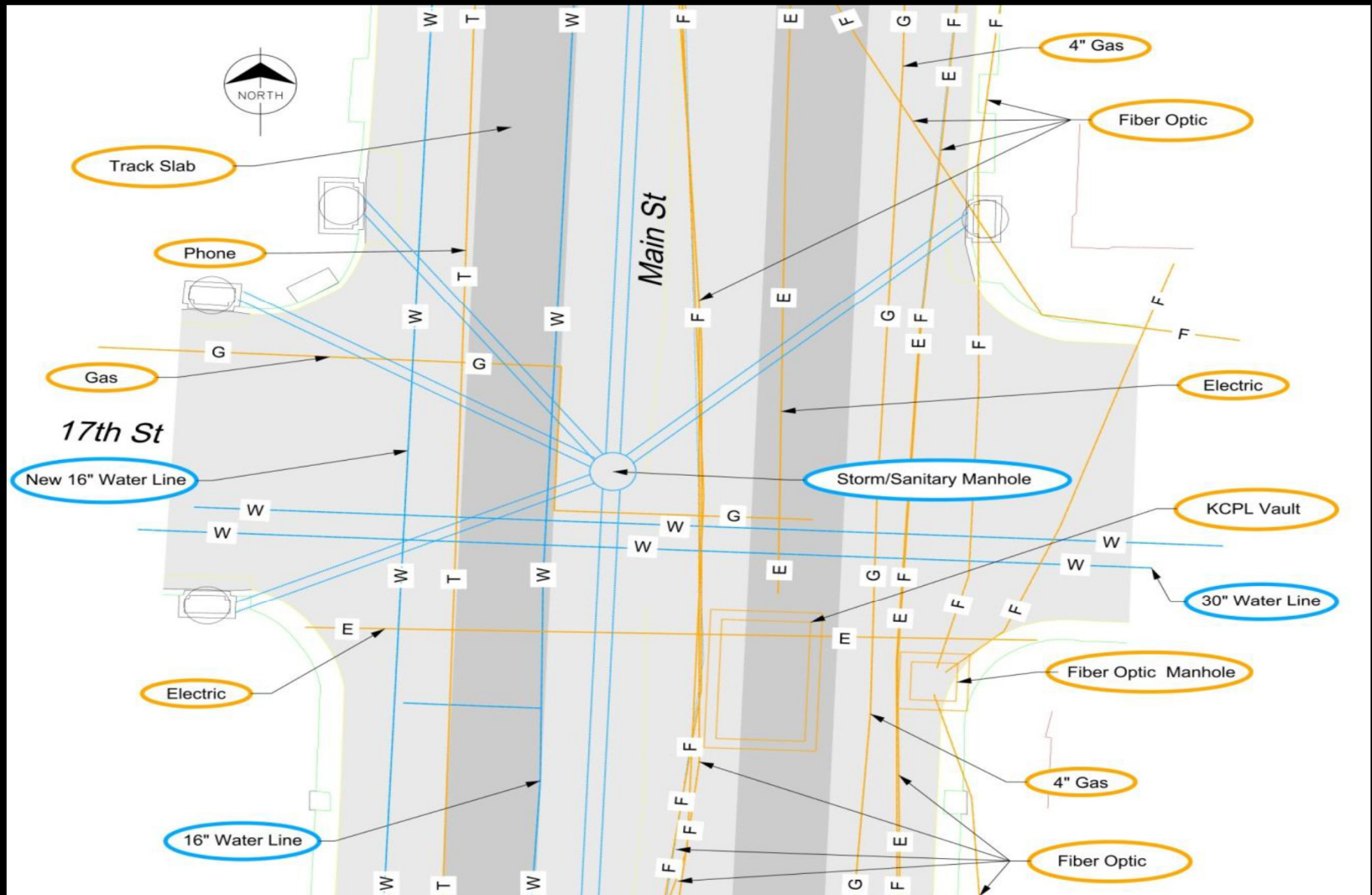
Construction / Track

Then power poles, cables and track will be installed

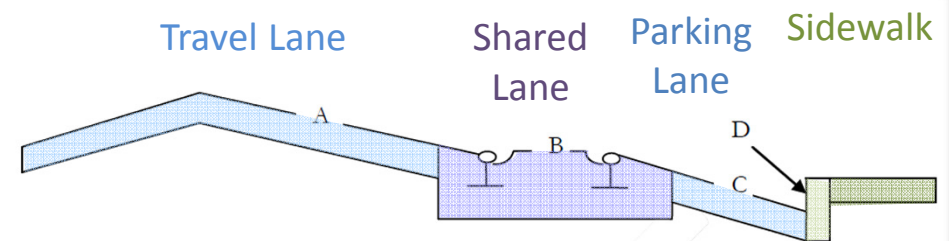
1. The contractor will install power poles and overhead cables to power the streetcars.
2. The contractor will pour slab concrete and then place the rail.

Approximate Construction Time: 3 to 4 additional weeks per block

Utilities Downtown Kansas City



Track Construction



	Desirable	Maximum	Minimum
A	2%	5% or Match Existing	1% or Match Existing
B	0%	1%	0%
C	2-4%	7% or Match Existing	1% or Match Existing
D	6-8 inches	10 inches	4 inches



Typical Streetcar Rail Types



Block Rail – Mainline Rail for Kansas City



Stop Construction



Vehicle Maintenance Facility

Store and maintain vehicles

3 active vehicles and 1 spare

2 level floor plan

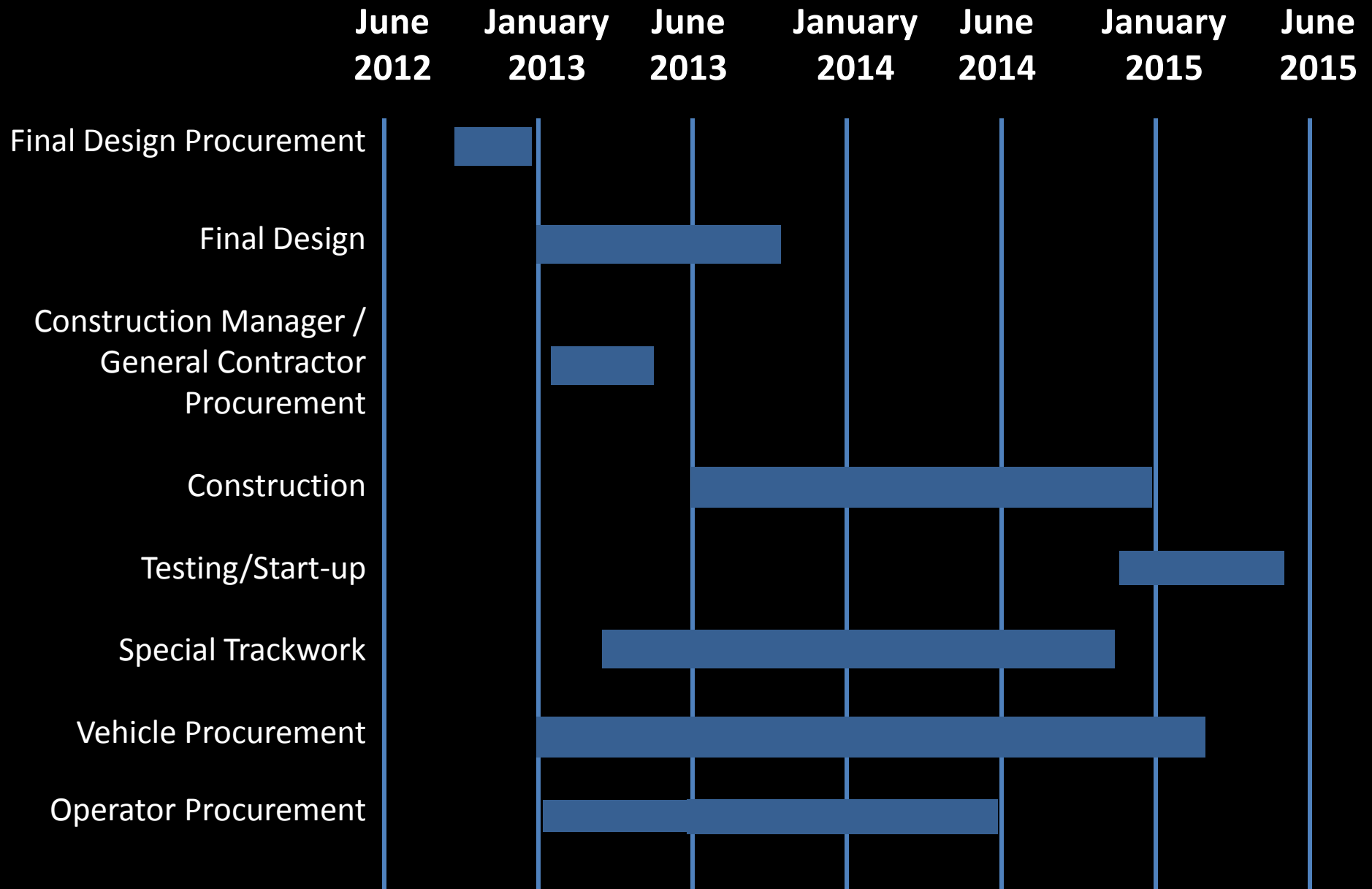
Mechanical Mezzanine



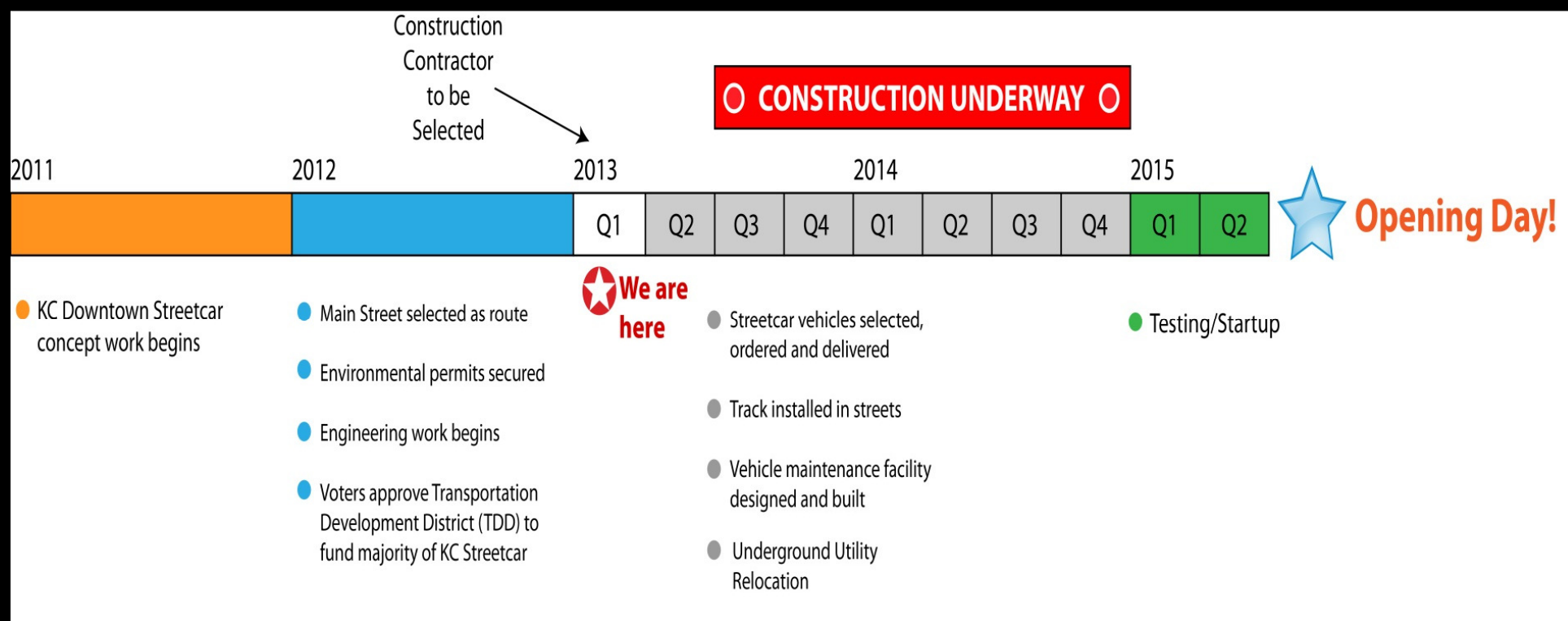
Project Cost Estimate

Guideway & Track Elements	\$ 11,000,000
Stations, Stops, Terminals	\$ 2,000,000
Vehicle Maintenance Facilities: Yards, shops and Buildings	\$ 15,000,000
Sitework and Special Conditions	\$ 9,000,000
Systems: Power, control and distribution	\$ 13,000,000
ROW and Land	\$ 1,000,000
City Utility Relocations	\$ 6,000,000
Vehicles	\$ 20,000,000
Professional Services: Design, Project Management, Testing, Inspection	\$ 16,000,000
Contingency	<u>\$ 9,000,000</u>
Total	\$ 102,000,000

Overall Project Schedule



Construction Timeline



Public Engagement



Public Meeting

03/06/2013

Over 200 in attendance

76 hardcopy and online comments
submitted

Webpage and social media

www.kcstreetcar.org

[Twitter.com/kcstreetcar](https://twitter.com/kcstreetcar)

[Facebook.com/kcstreetcar](https://facebook.com/kcstreetcar)

Streetcar Hotline

One-on-one meetings

Thank You!

